

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

REMARKS

Claims 1-16 have been examined on their merits.

Applicants thank the Patent Office for indicating that claims 5-9 and 14-16 are allowed.

Applicants herein amend claims 1, 3-5, 10 and 12-14 to recite that the routing calculations are based on a maximum number of signal compressions and decompressions, as described at, for example, page 7, lines 8-14 of the originally filed specification.

Claims 1-16 are all the claims pending in the application.

1. Claims 1-4 and 10-13 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lee (U.S. Patent No. 6,122,283) in view of Gittins *et al.* (U.S. Patent No. 5,638,363). Applicants traverse the rejection of claims 1-4 and 10-13 at least for the reasons discussed below.

The Patent Office acknowledges that Lee fails to explicitly disclose “performing at least two routing calculation [sic] for a maximum number of compression is of signal compressions and routing calculations comprising a first routing calculation for a number of links using signal compression that is less than the maximum number, and a second routing calculation for the maximum number of links using signal compression obtained from the first routing calculation.” *See* July 19, 2004 Final Office Action, pg. 3. The Patent Office alleges that Gittens *et al.* provides the necessary disclosure to overcome the acknowledged deficiencies of Lee.

The combination of Lee and Gittens *et al.* fails to teach or suggest the routing calculations involving the number of signal compressions and decompressions, as recited in

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U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

claims 1 and 10. The Patent Office appears to be equating the compression of *an entire network*, as disclosed by Lee, with a routing calculation that factors in if individual links use *signal compression* when the routing calculation is being performed, as recited in claims 1 and 10. The Patent Office has not cited any passage in Lee that describes the links interconnecting the network nodes as using signal compression, nor has the Patent Office cited in any passage in Lee that describes a network having links that use signal compression and links that do not use signal compression. The Patent Office has not cited any passage in Lee that describes determining network routes based on whether a link uses compression or does not use signal compression. Moreover, the fact that Lee uses a Dijkstra methodology or a Floyd-Warshall methodology for compression of the network topology is immaterial. Lee uses those methodologies *to compress a network topology*, and not to perform a routing calculation involving network links that use signal compression, as well as network links that do not use signal compression. The Patent Office's citation to col. 5, lines 37-65 and claim 12 refer to Dijkstra methodology or Floyd-Warshall methodology for compression of an entire network topology, and does not teach or suggest a network having links that use signal compression and links that do not use signal compression, nor does the citation teach or suggest routing calculations based on a number of signal compressions and decompressions.

The Patent Office asserts that Gittens *et al.* disclose "multiple calculations for each traffic type with respect to links from sources to destination." Specifically, the Patent Office asserts that Gittens *et al.* disclose a bandwidth manager for one type of data and a second bandwidth manager for a second type of data, and that disclosure allegedly supports multiple route

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U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

calculations. As support, the Patent Office cites col. 4, lines 1-62 and claim 37 of Gittens *et al.* See July 19, 2004 Final Office Action, pg. 7. At col. 4, lines 1-62, Gittens *et al.* disclose that a first type of traffic and a second type of traffic, generated at the user's site, are multiplexed for transmission over the link at the user's end of the link, and are demultiplexed at the receiving end. Claim 37 is consistent, in that two bandwidth managers are disclosed, and one bandwidth manager compresses the data for transmission and the second bandwidth manager decompresses the transmitted data. There is no teaching or suggestion of multiple routing calculations based upon whether a link uses signal compression or does not use signal compression, nor is there any teaching or suggestion of a routing calculation based upon a maximum number of signal compressions and decompressions.

The Patent Office alleges that Gittens *et al.* disclose "at least one link uses signal compression (compressing voice data via bandwidth managing device that analyzes data to be transmitted and provides a level of compression that is dependent upon the type of data being transmitted) and the remaining links do not use signal compression (non-voice data without compression)." As noted above, there is no teaching or suggestion in Gittens *et al.* of a route calculation and route selection based upon whether the signal links use signal compression or do not use signal compression, or of a routing calculation based upon a maximum number of signal compressions and decompressions. Referring to Figure 4 of Gittens *et al.*, the only link that is uses signal compression is the link 50 between the access bandwidth manager 46 and the complementary access bandwidth manager 51. Gittens *et al.* lacks any teaching or suggestion that the dedicated switching network 49 has links that use signal compression or do not use

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

signal compression, or of a routing calculation based upon a maximum number of signal compressions and decompressions.

In the combination of Lee and Gittens *et al.*, the deficiencies are that route selection does not account for the presence of network links that use signal compression and links that do not use signal compression, and the route selection is not based on routing calculations that use a maximum number of signal compressions and decompressions. Assuming *arguendo* that Gittens *et al.*'s bandwidth access managers were incorporated in the network of Lee, the combination still lacks any teaching or suggestion that the route calculations account for whether a link uses signal compression or does not use signal compression, and that routing calculations use a maximum number of signal compressions and decompressions. Gittens *et al.* completely lacks any disclosure of route calculations based on whether or not a link uses signal compression, or a maximum number of signal compressions and decompressions. Gittens *et al.* only discloses a single route that uses signal compression, *i.e.*, the route between an access bandwidth manager 46 and its complement. Moreover, Gittens *et al.* is directed to the features of the access bandwidth manager, and lacks any discussion of routing signals through the dedicated switching network 49. As discussed above, neither Lee nor Gittens *et al.* takes into account if network link uses signal compression when calculating routes through a network, as recited in claims 1 and 10.

Furthermore, with respect to claim 10, the combination of Lee and Gittens *et al.* does not disclose a first routing calculation using links that do not use signal compression. The signal compression performed by the access bandwidth manager of Gittens *et al.* compresses signals

AMENDMENT UNDER 37 C.F.R. § 1.114(c)

U.S. APPLN. NO. 09/364,308

ATTORNEY DOCKET NO. Q55268

being output to its complementary access bandwidth manager. How can the access bandwidth manager/complementary access bandwidth manager pair provide a link with signal compression for claim 1, and not provide a link with signal compression for claim 10? Applicants submit that the Patent Office cannot fulfill the "all limitations" prong of a *prima facie* case of obviousness, as required by *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991).

Applicants submit that one of ordinary skill in the art would not be motivated to combine the two references. Although the Patent Office provides a motivation analysis with respect to saving bandwidth, Lee and Gittins *et al.* lack any teaching about a network that has links that use signal compression and links that do not use signal compression, and the desirability of making routing calculations that involve different numbers of signal compressions and decompressions. Applicants submit that the Patent Office cannot fulfill the motivation prong of a *prima facie* case of obviousness, as required by *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999) and *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001).

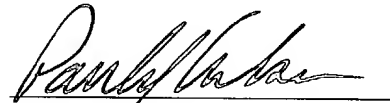
Based on the foregoing reasons, Applicants submit that the combination of Lee and Gittins *et al.* fails to disclose all of the claimed elements as arranged in claims 1 and 10. Therefore, the combination of Lee and Gittins *et al.* clearly cannot render the present invention obvious as recited in claims 1 and 10. Thus, Applicants submit that claims 1 and 10 are allowable, and further submit that claims 2-4 and 11-13 are allowable as well, at least by virtue of their dependency from claims 1 and 10, respectively. Applicants respectfully request that the Patent Office withdraw the § 103(a) rejection of claims 1-4 and 10-13.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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